Appendix F

Historical policies and social, behavioral and cultural factors that have contributed to habitat and ecosystem change

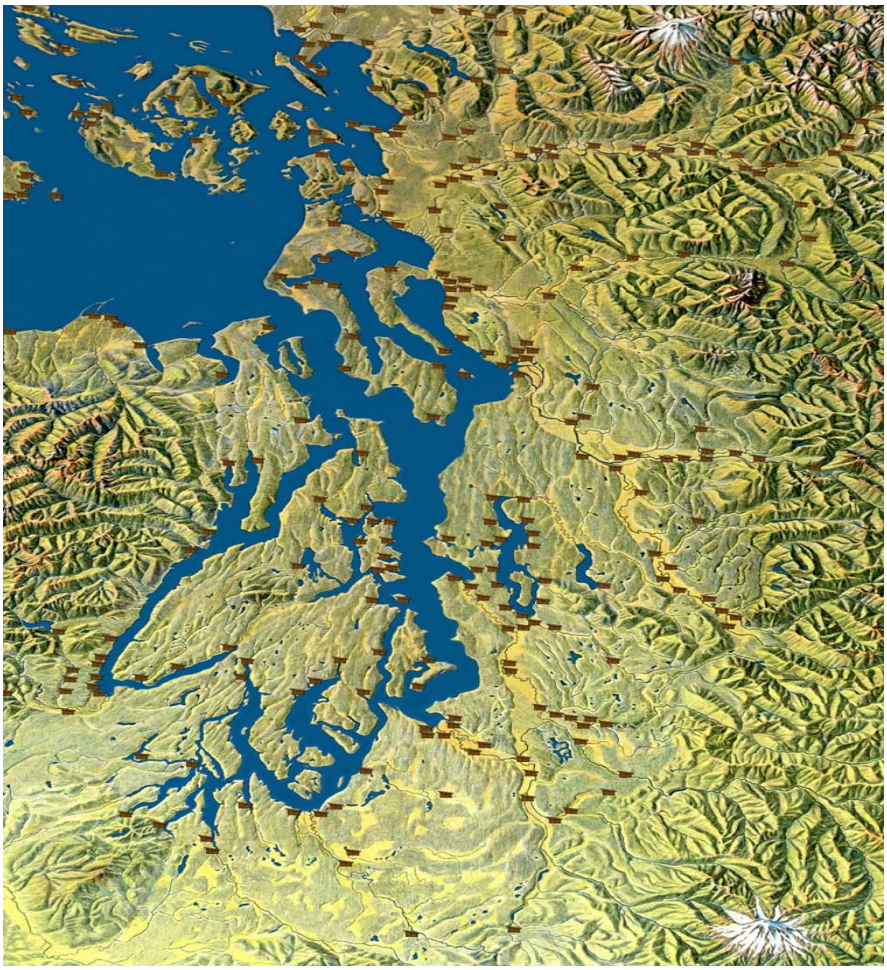
For approximately 10,000 years prior to European settlement of Puget Sound, Coast Salish-speaking native cultures built villages along Puget Sound's shorelines and within its larger estuaries (See map below). Early censuses of Native American communities are inexact, but conservative estimates state that tens of thousands of people lived in the Puget Sound country in ancient times. Even in the mid-1800s, following devastating waves of smallpox, tuberculosis, and other introduced diseases, every river drainage was home to hundreds if not thousands of indigenous people, and every favorable stretch of saltwater coast held a village of one or more extended families (Watson, 1999). Chief Seattle lived in a home, which stretched more than 600 feet along the shore of Agate Passage, across Puget Sound from the city that bears his name. The resources and shorelines of the sound were considered to be a commons shared by all, however, raids between villages occurred from time to time.

In these coastal villages, extended family groups of 30-40 individuals would harvest and prepare fish and shellfish for consumption, collect large woody debris to build longhouses for shelter and ceremony, construct canoes and discard everyday waste. This level of activity likely put little strain on nearshore natural processes but it is conceivable that localized resource depletion may have resulted in tribal bands moving from one area to another with more abundant seasonal resources.

English explorers entered Puget Sound in 1792 (Harmon, 2004) largely looking to exploit the abundant fur resources of the region. In spring 1833, the Hudson's Bay Company (HBC) established a stockade and trading post on the Nisqually Delta, which becomes the first permanent European settlement on Puget Sound (Crowley, 1999). Gradually, Fort Nisqually grew from a remote outpost to a major international trading establishment. A subsidiary, the Puget Sound's Agricultural Company, was formed to establish new sources of revenue for the HBC. Soon Fort Nisqually was producing crops and livestock for local consumption and export to Russian America, Hawaii, Spanish California, Europe and Asia (Fort Nisqually Historical Site, 1999). The long domination of the Northwest by the fur companies decimated the region's wildlife, especially its populations of otter and beaver (Oregon City Link, 2004). Beavers co-evolved with salmon, so flooding cycles, run timing and stream structure that would have affected the nearshore environment would have changed as a result of the decimation of beaver populations. It is also likely that the Puget Sound Agricultural Company served as a model for settlers who moved into other river deltas, drained and filled the wetlands for agriculture and established new waterfront market centers for distribution. During this time, settlers also considered resources to be held in common within a region largely considered wilderness. Trade was a matter of necessity. Some saw the abundance of those resources as an unfulfilled commercial opportunity.

The United States assumed sovereignty north of the Columbia River in 1846 greatly increasing immigration through land grants ceded by Indian tribes being consolidated into reservations and treaties for establishing hunting and fishing rights (Harmon, 2004). A fundamental difference in

the views of land ownership between native tribes and European settlers led to great hostility. Obviously, the European settlers views won out in the end changing the face of Puget Sound from that time forward. Industrial logging of Puget Sound lowland valleys commenced in the 1870's aided by consolidation of homestead claims into large industrial forestland holdings. William Renton notes in 1883 that the "timber contiguous to the Sound is nearly exhausted" (WA State Historical Society, 2000).



(Source: "Puget Sound Region, Washington" copyright by Dee Molenaar, 1987, with permission and digitally revised by Tom Dailey, 2002)
Known permanent village sites of the Coast Salish peoples, circa 1800.

Throughout this time period, transportation infrastructure increased dramatically as well. All commerce and transportation in the mid 1800's was by water or horse. Steamboats plied Puget Sound waters carrying logs from newly cleared areas, most of which were close to rivers or the sound. By 1883, the Pacific Northwest coast was connected to the eastern states by railroad. Portland became a conduit for agricultural produce from inland and quickly became one of the world's largest wheat-shipment ports (Oregon City Link, 2004). The rail line along most of Puget Sound's eastern shoreline was completed early in the 20th century. Ferries were increasingly important for moving people around the sound. The Tacoma Narrows bridge (1950) and the Hood Canal Bridge (1961) became important links to the Olympic Peninsula. Not only were

there significant direct structural damages and disruption of natural processes from the construction and continued existence of this infrastructure, but upland development patterns followed. Finally, the modern state highway and Interstate 5 reduce travel times around Puget Sound from days to hours.

Robust fishing and logging industries established shorefront processing facilities and mills that further degraded nearshore habitats throughout the 20th century. Immigrant farmers from lowland European countries brought their knowledge of wetland "reclamation" and drained huge swaths of intertidal marsh for agriculture before 1940. This "engineering approach" was not confined to agriculture. The city of Seattle desperately needed more flat land and so they sluiced an entire hill (the Denny Regrade) into Puget Sound (Crowley, 1999). The advent of world wars meant Puget Sound's strategic importance was realized giving rise to a boom in military installations. The military also heavily invested in an airplane company, Boeing, who introduced Seattle and the Puget Sound area to the world at the 1962 World's Fair. The region also received massive government grants for infrastructure projects in the 20th century, including a series of dams on the Columbia River, which provided cheap electricity and fueled additional industrial growth in Puget Sound. Together these incentives swelled immigration to the area and increased the demand for residential land. Improved standard of living spurred waterfront development and newly formed cities enjoyed the high land values and tax revenues waterfront property brings. Local governments responded by platting many small lots along the waterfront and the real estate industry marketed Puget Sound views for premium prices. Some of the same European views about land ownership that resulted in removing native cultures from the region, also dictated the aesthetic of lawns, protection from erosion and restriction of public access along Puget Sound's shoreline. As people moved into Puget Sound from even more environmentally damaged areas, they began to realize the values of beauty and natural function that persist in the region.

Negative feedbacks from rapid development and resource extraction prompted environmental legislation in the early 1970's corresponding to a similar awakening nationwide. Human actions have led to protection of nearshore areas through regulation. Our more recent commitment to restoration of nearshore processes signals additional changes to the social, cultural and economic values that are currently held by many Puget Sound residents.